



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,383	01/05/2004	James G. Wohlford	S522.12-0010	2651
164	7590	11/17/2005		
KINNEY & LANGE, P.A. THE KINNEY & LANGE BUILDING 312 SOUTH THIRD STREET MINNEAPOLIS, MN 55415-1002			EXAMINER AYRES, TIMOTHY MICHAEL	
			ART UNIT	PAPER NUMBER
			3637	
DATE MAILED: 11/17/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/751,383

Applicant(s)

WOHLFORD ET AL.

Examiner

Timothy M. Ayres

Art Unit

3637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/05/04.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

This is a first office action on the merits of application SN 10/751,383.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the bumper of claim 3 and the tongue of claim 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 3 and 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The bumper of claim 3 is not shown in the drawing and it is unclear where it is attached to the locking body. The tongue of claim 7 is not shown in the drawing so it is unclear as to how it extends from the cross support or where it is being notched.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 1 recites a plurality of host structures and a plurality of devices. However, it is unclear how the devices comprise a locking body/engagement member or which host structure is being used. It appears that applicant meant each device has a locking body that cooperates with a slot of a host structure.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

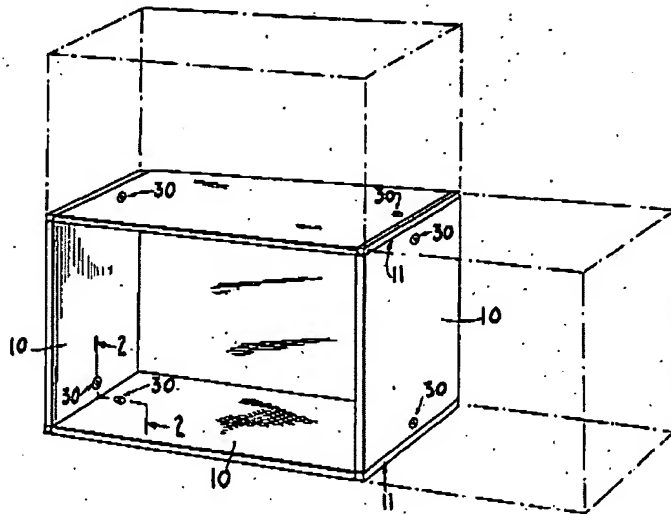
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

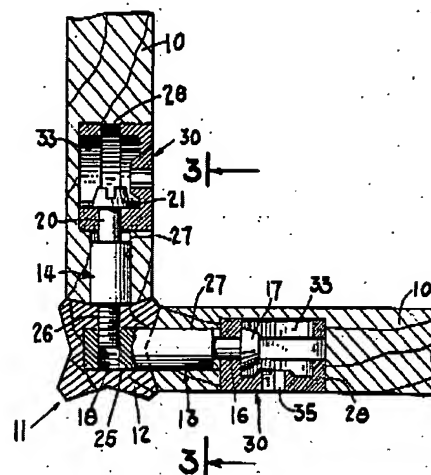
8. Claims 1, 6, 8, 9 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 2,967,747 to Bus. Bus '747 discloses a knockdown furniture connector system. Disclosed in figure 1 is a rectangular box using the connector system, the scope of the connector system implicitly goes beyond just a box and can be used for any sort of furniture including a home entertainment system (Col. 1, lines 37-41). The system includes a plurality of host structure (12) and a plurality of cross supports (10) held together with a plurality of fastening devices. The fastening devices are locking bodies (13,14), which are fastened to each other at their respective distal ends with an engagement member (18,23) inside slots (25,26) of the host support (12). The proximal ends of the locking bodies (13,14) have a head (17,21) that connects to a cam (30) so that the cross support (10) and the host structure (12) are fastened together (Col. 3, lines 50-75, Col. 4, lines 1-6). A central shaft (15,19) is on the locking body (13,14) between the head (17,21) and the engagement member (18,23). The edge of the cross support (10) engages the wall of the host structure (12) when the fastening device is

secured. The cam (30) is embedded in the cross support (10) as seen in figures 1-3.

The cross support (10) is a panel.



Bus '747 Figure 1



Bus '747 Figure 2

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 3637

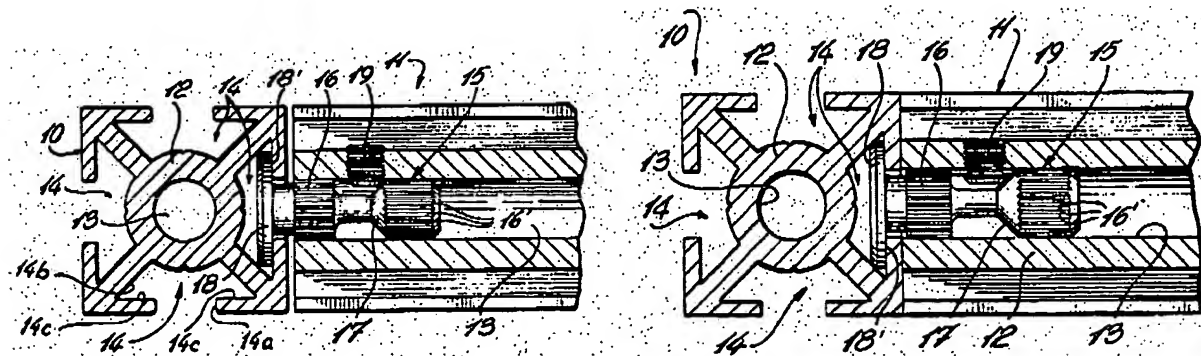
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 2,967,747 to Bus. Bus '747 discloses every element as claimed and discussed above except the head of the locking body being a ball and a bumper attached to the engagement member. It would have been obvious for a person of ordinary skill in the art to modify Bus '747 by having the locking body with head element in a ball configuration, since the applicant has not disclosed that having the head element be a ball solves any stated problem or is for any particular purpose and it appears that the locking body would perform equally well with Bus' '747 head element since it is functionally equivalent and works equally well. On page 10, line 16 and 17 of the specification the applicant admitted that bumpers are readily obtained at hardware stores. It would have been obvious for a person of ordinary skill in the art to take the bumpers that are found in the hardware stores and add them on to the engagement member of Bus since they are normally used to cushion objects such as cabinet doors and it would be advantageous to cushion the engagement member.

12. Claims 4, 5, and 10-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 2,967,747 to Bus in view of US Patent 4,490,064 to Ducharme. Bus '747 discloses every element as claimed and discussed above except the host structure as a geometrically configured tube with the slot having a narrower outer portion and a wider inner portion and a ball as the head on the locking body.

Art Unit: 3637

Ducarme '064 discloses a joint for a modular frame construction. A geometrically extruded tube (10) is the host structure and is fastened to the cross support (11) via a locking body (15). The locking body (15) has an engagement member (18) that fits in and is movable in the wider portion (14b) of slot (14) of the geometrically extruded tube (10) as seen in figure 2. The contact face (18') of the engagement member (18) engages the internal face (14c) of a narrow portion (14a) of the channel (14) as seen in figure 3 when a set screw (19) is tightened to act on a camming surface (17) of the locking body (15). At the time of the invention it would have been obvious for a person of ordinary skill in the art to replace the host structure of Bus's system with the host structure of Ducharme and replace the engagement member of the locking body of Bus with the engagement member of the locking body of Ducharme so the host structure does not require specially machined apertures and thereby reducing the cost. It would have been obvious for a person of ordinary skill in the art to modify Bus '747 by having the locking body with head element in a ball configuration, since the applicant has not disclosed that having the head element be a ball solves any stated problem or is for any particular purpose and it appears that the locking body would perform equally well with Bus' '747 head element since it is functionally equivalent and works equally well.



Ducharme '064 Figure 2

Ducharme '064 Figure 3

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 5,810,505 to Henriott discloses a locking body with a round head and cam system. US 3,458,052 to Kann discloses a rack with geometrically extruded tubes as supports. US Patent 4,599,011 to Tashiro discloses a cam system with a round head on the locking body. US Patent 4,371,221 to Citterio discloses a modular furniture system with host structures and cross supports. US Patent 4,660,901 to Shimada discloses a furniture system that includes hosts structures and cross supports. US Patent 3,250,584 to Tassell discloses a furniture system with a geometrically extruded tube as a host structure. US Patent 3,059,983 to Strom discloses a joint system for a cross support to be used in custom built cabinets. European Patent 226,496 to Stoltz discloses a furniture system with host structures in the corners and cross supports attached in between the host structures. European Patent 357,985 to Diekmann discloses a geometrically extruded tube as a host structure with a slot to receive a engagement member of a locking body that is tightened by a rotating cam. European Patent 38,086 to Schunck discloses a joint mechanism that uses a geometrically extruded tube as a host structure with a slot and a locking body with a camming surface.

Art Unit: 3637

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy M. Ayres whose telephone number is (571) 272-8299. The examiner can normally be reached on MON-THU 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571) 272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TMA
11/9/05

LANNA MAI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

